

We Claim:

1. A vacuum cleaner, comprising:

a housing; and

at least one running roller operatively connected to said housing and having:

a hub;

a running ring;

a wall connecting said running ring and said hub, said wall having:

two side surfaces; and

a curved cross-section between said running ring and said hub; and

at least one reinforcing rib extending at least from one of said two side surfaces of said wall and being in contact with neither said hub nor said running ring in a non-loaded state of said running roller.

2. The vacuum cleaner according to claim 1, wherein said reinforcing rib extends from said hub in a direction of said wall and are not in contact with said wall in the non-loaded state of said running roller.

3. The vacuum cleaner according to claim 2, wherein:

said at least one reinforcing rib is a plurality of reinforcing ribs; and

said reinforcing ribs extend from said hub in a direction of said wall and are not in contact with said wall in the non-loaded state of said running roller

4. The vacuum cleaner according to claim 1, wherein said at least one reinforcing rib is a plurality of reinforcing ribs extending at least from one of said two side surfaces of said wall and being in contact with neither said hub nor said running ring in a non-loaded state of said running roller.

5. The vacuum cleaner according to claim 1, wherein said wall has one of the group consisting of an S-shaped cross-section and a Z-shaped cross-section.

6. The vacuum cleaner according to claim 2, wherein said wall has one of the group consisting of an S-shaped cross-section and a Z-shaped cross-section.

7. The vacuum cleaner according to claim 3, wherein said wall has one of the group consisting of an S-shaped cross-section and a Z-shaped cross-section.

8. The vacuum cleaner according to claim 4, wherein said wall has one of the group consisting of an S-shaped cross-section and a Z-shaped cross-section.

9. The vacuum cleaner according to claim 1, wherein said running ring has a convex running surface.

10. The vacuum cleaner according to claim 2, wherein said running ring has a convex running surface.

11. The vacuum cleaner according to claim 3, wherein said running ring has a convex running surface.

12. The vacuum cleaner according to claim 4, wherein said running ring has a convex running surface.

13. The vacuum cleaner according to claim 1, wherein said running ring has a depression and a resilient running surface disposed at said depression.

14. The vacuum cleaner according to claim 2, wherein said running ring has a depression and a resilient running surface disposed at said depression.

15. The vacuum cleaner according to claim 3, wherein said running ring has a depression and a resilient running surface disposed at said depression.

16. The vacuum cleaner according to claim 4, wherein said running ring has a depression and a resilient running surface disposed at said depression.

17. The vacuum cleaner according to claim 1, wherein said at least one running roller is a plurality of running rollers.

18. The vacuum cleaner according to claim 1, wherein said reinforcing ribs are in contact with at least one of said hub and said running ring in a loaded state of said running roller.

19. In a vacuum cleaner, a roller assembly having:

at least one running roller having:

a hub;

a running ring;

a wall connecting said running ring and said hub, said wall having:

two side surfaces; and

a curved cross-section between said running ring and said hub; and

at least one reinforcing rib extending at least from one of said two side surfaces of said wall and being in contact with neither said hub nor said running ring in a non-loaded state of said running roller.

20. A roller, comprising:

a roller body having:

a hub;

a running ring;

a wall connecting said running ring and said hub, said wall having:

two side surfaces; and

a curved cross-section between said running ring and said hub; and

at least one reinforcing rib extending at least from one of said two side surfaces of said wall and being in contact with neither said hub nor said running ring in a non-loaded state of said running roller.

21. A roller, comprising:

a roller body having:

a hub;

a running ring having a convex running surface;

a wall connecting said running ring and said hub, said wall having:

two side surfaces; and

a concertina-shaped cross-section between said
running ring and said hub; and

reinforcing ribs extending at least from one of said two
side surfaces of said wall and being in contact with
neither said hub nor said running ring in a non-loaded
state of said running roller.